

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

<b>In the Matter:</b>	)	
<b>Digital Audio Broadcasting Systems</b>	)	<b>MM DOCKET NO. 99-325</b>
<b>NRSC-5 Proposed Standard for IBOC</b>	)	

**REPLY of Leonard R. Kahn, PE, FIEEE**

**INTRODUCTION AND BACKGROUND**

As pointed out in a number of Comments by well respected Engineers and Station Owners as well as discussed in the undersigned's July 6<sup>th</sup>, 2005 Comments there is an overabundance of proof that, it is believed, should convince the Commission to abandon these decade long Rule Making Proceedings, Docket No. MM 99-325. Furthermore, to avoid future waste of broadcaster's limited time and resources, the undersigned Respectfully Requests the FCC to initiate an investigation of this entire Rule Making Proceedings to determine if any of the parties violated FCC's guidelines as mandated by RKO General litigation.<sup>1</sup> Clearly, iBOC 2 supporter's announced goal of controlling all of AM and FM radio requires the ultimate diligence by the Commission. This is especially

<sup>1</sup> *RKO General Inc. v. FCC*, 670 F.2d 215, cert. denied strictly applied the requirement that licensees must disclose the entity that controls the licensee. As those of us who were involved with the most ethical management of RKO will remember our shock that, due to the purchase of RKO by General Tire, the FCC was forced to require RKO to divest itself of all of its AM, FM and TV properties even though it apparently cost thousands of long term employees their jobs.

<sup>2</sup> The undersigned has used in KCI's website, wrathofkahn.ORG, the acronym "iBOC" instead of "IBOC" (In Band-On Channel) to distinguish between the FCC's generic term and the specific system which is the subject of the instant NAB/NRSC Report. Clearly, the instant submission does not pertain to KCI's Cam-D™ IBOC System. The iBOC acronym is not protected by KCI and others may use it freely.

troublesome recognizing the iBOC System is according to iBiquity's website funded by an international group or cartel. 3

(It is noteworthy that this is the second Reply filing. The first, July 25<sup>th</sup>, Reply SUPPORTED iBiquity's request to operate at night with its AM System, with certain caveats to guard against loss of national security and to help protect innocent stations from damage caused by the increased interference. That Reply also posed the question of why iBiquity required FCC permission to operate at night, if the System truly meets FCC Rules? The reasons for (surprisingly) supporting our competitor's Request is detailed *infra*.)

**AMERICANS WILL NOT ACCEPT ANOTHER UNDER ATTACK "RADIO FAILURE"**

It is ironical that as this first draft is being written (Aug. 12<sup>th</sup>), the City of New York is complying with a Freedom of Information demand for the audio recordings that may finally shed light on THE FAILURE OF RADIO during the 9/11 Attack.

And now as we approach the attack's 4<sup>th</sup> Anniversary, we are so concerned that AM radio may fail during any further attacks on our soil.

3 That the major investors in the iBiquity Digital Corporation are international in fact can be confirmed by visiting the firm's website. *Black's Law Dictionary*, 4<sup>th</sup> Ed. defines "Cartel" in part as *A combination of producers of any product joined together to control its production, sale, and price in any particular industry or commodity.* (Citing the Federal NY District Court) Of course, there are lawful cartels and the instant Comments do not take a position on such matters except to note that unlike FCC Broadcast Licensees there is no indication in the Commission's files of who actually controls the group. If such information is being maintained under seal, the undersigned urges the Commission to unseal them so that an *RKO General Inc. v. FCC*, 670 F.2d 215, cert. denied, type investigation can be initiated.

**THE MARKETPLACE DID NOT DECIDE THE OUTCOME OF AM STEREO**

A few Comments include arguments that AM Stereo was a failure because the FCC did not pick a system... But not only did the FCC pick a system, it picked one TWICE:

1. Firstly, with NAB approval the FCC picked the Magnavox/Phillips System. But when the broadcasters shouted the Commissioners down, it authorized a free marketplace competition that the undersigned proposed then AND IS PROPOSING NOW.

2. Secondly, when Motorola, General Motors, Harris and Kahn's putative partner Hazeltine found that the Free Marketplace was picking the wrong (OUR) System, these behemoths used their powerful lobbyists, NAB/EIA and others to convince the FCC to abandon the marketplace and pick the Motorola system. And why did its system fail? "IT WAS AFRAID OF THE DARK" and even during Daytime it had BAD COVERAGE and strange ARTIFACTS... Platform Motion... SOUND FAMILIAR?

The bottom line is: All Americans should know that free competition, not Government edicts, made our Country the envy of the World. We DON'T WANT THE FCC TO PICK THE Cam-D™ SYSTEM OR ANY OTHER SYSTEM.

Let the Public Decide. Americans will never accept a System that cannot reach the 800 Million radios they rely on whenever danger lurks, Day and especially at Night.

**SUMMARY OF MAIN ARGUMENTS OPPOSING THE MM 99-325 ORDER**

On January 24<sup>th</sup> of 2003, prior to the Kahn Communications, Inc., (KCI), development of the Cam-D™ System and prior to any belief that KCI would consider competing in the IBOC competition, the undersigned submitted a Request for Rulemaking

which primarily called for a Blue Ribbon Panel of prestigious individuals with knowledge of FCC procedures comprising former FCC Commissioners and other senior FCC officials who could devote the time to formulate new rules for providing unbiased advice to the Commission re ways of obtaining technical advice. Thus, the Blue Ribbon Panel would propose to the Commission appropriate procedures for replacing the NAB/NRSC failed advisors, who are clearly subject to a serious conflict of interest disability.

*Summarizing: In the starkest terms, the MM 99-325 Rule Making can dramatically alter AM & FM Radio as we know it, converting a service that almost every single American uses every day of the year, to a new form of unproven technology whose AM version ONLY WORKS DURING DAYLIGHT HOURS and occupies 7 times the current bandwidth. Furthermore, it is a major step in DAB Proponents' avowed plan to fully digitalize Radio Broadcasting which will render obsolete every single radio receiver owned by the Public and require their replacement with more expensive radios. In addition, the final Plan (and even the interim plan) requires massive equipment and license expenditures by AM & FM participating stations, and these huge costs, as well as a dramatic increase in interference, may force many independent rural stations out of business.*

*The AM DAB situation is analogous to an automobile manufacturer introducing a new type of vehicle that can only be driven during daylight hours and which is Seven times as wide as the widest vehicle on the road, so that it cannot be driven over most of America's highways. And which, if iBOCers convince the FCC to let them go "all digital" will render useless all existing cars!*

Even if the FCC went along with such a radical plan that would destroy Free AM Radio, iBOC's inherent problems would not be solved. Major 50 kw stations will not even cover their cities of license and skywave reception will disappear. *A Cam-D™ 100 watt station will provide better performance DAY and NIGHT with existing radios in New York City than an "all digital" 50 kw iBOC station with the most expensive iBOC special receiver, and Cam-D would sound better. The Trillion Dollar "pot of gold" seekers, i.e., the gullible, non-technical "decision makers" of the big powerful broadcasters apparently do not realize*

they are not powerful enough to control the laws of physics...

Nor can they control the laws of man... Can one visualize the PUBLIC'S WRATH when it learns that the radios it paid for with its own hard earned money don't work at NIGHT and someone turned off their favorite sports or news talk station and now wants them to buy a far more expensive radio, that still doesn't work at night! And if AM goes "all digital" iBOC, all their radios will be completely USELESS!

### **WHY "ALL DIGITAL" iBOC SIGNALS WILL NEVER REPLACE FREE AM RADIO**

The standard AM band relies on skywave propagation; otherwise stations would be limited to ground wave coverage at night. Thus, any digital or analog system must accommodate skywave propagation, if it is to be effective at night.

Fading on the medium wave band is essentially a phase or variable time delay problem, not an amplitude problem. This fact can be demonstrated by viewing the spectrum of a standard AM signal with a spectrum analyzer at night, while listening to the signal on a normal radio. Note that even during deep fades the narrow double sideband signal varies only a few db, easily corrected by the receiver's AVC. Obviously, what is happening is the sidebands, being equal in amplitude, when 180 degrees out of phase produce a loss (null) of sound. This is one of the main reasons the narrow band POWER-side™ System has successfully reduced fading and why a somewhat more complicated and the even narrower bandwidth Cam-D™ System, provides even more effective operation during severe fades. Now imagine what will happen to a really wideband iBOC signal. And remember, iBOC signals must be correlated in TIME as well as phase.. Impossible!

Thus, the Hybrid iBOC and the incompatible "All Digital" iBOC systems CAN

**NEVER work at night, BECAUSE wideband iBOC signals must be perfectly correlated.**

**IS AN ABUNDANCE OF CHANNELS GOOD FOR FREE RADIO BROADCASTING?**

**iBOC System supporters, especially NPR, point out that their System can support huge numbers of program channels. And while the undersigned would argue that other, less flawed systems, can also provide more channels than analog FM, BUT, the real question is this a good thing for Free AM & FM Radio? Basic free market theory indicates that the answer is "NO."**

**The reason is obvious. There are a finite number of listener-hours in a given radio station's market. Thus, if a station desires to increase its share, it will select a format that it believes will be successful and then it estimates how much must be budgeted to develop and maintain that specific audience share. Clearly, how much the station can budget for programming and new technology depends on market share. This relationship prevails for both small and large stations, but hurts somewhat more growing and new stations, that have a higher price to pay to enter the market.**

**This is analogous to currency Gresham's Law..Bad (cheap) programming and hardware will drive out good programming and hardware.**

**It is also noteworthy that NPR stations are the strongest advocates for a plethora of channels. Of course, NPR is not controlled by the forces of Free Radio, and indeed, the U.S. Treasury funds all of NPR's iBOC related equipment purchases and the Treasury also pays it for promoting iBOC! And, the result of NPR's installation Government paid iBOC equipment is the "jamming" of other stations that may have a different political viewpoint. (Please see the May 11, 2005 issue of wrathofkahn.ORG.) In any case, investigating the**

true effect of dramatically increasing the number of program channels would be just the type of question that the FCC might consider assigning to the above described "Blue Ribbon" Panel.

**Summary of Arguments Contained Herein and July 6<sup>th</sup> Comments**

The Public will never understand why the FCC gave its stamp of approval to a proprietary system that literally jams neighboring stations, sounds like a poor phone connection, and DOESN'T WORK AT ALL AT NIGHT and can NEVER provide the same nighttime service that the Public relies on from KSL, WOAI, WABC, WBZ, WCBS, WLW, WLS, WWL, KNX, WGN, WTOP, KFI, XETRA, KCBS, KNBR, WJR, KMOX, KOY, KRVN, KLAC, WRVA, etc., now offer every night of the year.

**JUST WHO REALLY CONTROLS iBOC?**

This question may appear rhetorical and used to make this argument sound a little more interesting, but actually is the most serious question in this over a decade long inquiry. While the FCC may have felt comfortable relying on the NAB and its subservient NRSC Committee to provide technical advice as it represents some broadcasters (the ones that provide its main funding), but clearly NAB DOES NOT REPRESENT THE PUBLIC. Actually expecting NAB to speak for the Public is as ingenuous as expecting an attorney to fairly present both sides of a case... not in a competitive situation such as we have here.

Actually, the situation raises a much more basic and serious problem. The FCC cannot ignore nor "farm out" its role in guarding our crucial communications systems from falling under the CONTROL of foreign, or even domestic entities, that may not care if they harm the American Public. How can the FCC know if iBiquity is acting

**appropriately if the Commission doesn't KNOW WHO THESE PEOPLE ARE?**

**Accordingly, to avoid taking additional money from members of the innocent Public who have been misled into buying useless expensive iBOC radios, innocent Broadcasters who have been stampeded into endangering the very solvency of their stations, and foreign and domestic firms from inducing the Public to invest on the basis of FCC Press Releases can only further seriously endanger the reputation of this Agency. 4**

**PRAYER**

**It is Respectfully urged that the Commission immediately bring these proceedings to an end. And, it is further Respectfully Requested that this Honorable Commission initiate an investigation to determine which entities control the iBOC System and whether any licensees and other entities should be sanctioned as per *RKO General* and any other controlling authority, so that any future possible serious threats to the Public Interests are never again attempted.**

**Dated: Aug. 16, 2005**

**Respectfully submitted,**



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**cc: iBiquity Digital Corporation**

**4. The question may be raised: Does the undersigned have Standing to have access to information regarding iBiquity's ownership. The answer is clear. Since I am one of iBiquity's competitors, I must have this information so I can properly perform my adverse role... Similar to one challenging a broadcast station owner's license renewal.**



